

Biodiversity 2: Three-Minute Video

Middle School Biodiversity Curriculum

Class Time Required:

4 class periods (50-65 minutes)

Extension (1-2 hours)

Materials Needed:

- Engagement: Three-Minute Video
- Investigation and Explanation: Worksheet 1, "Biodiversity 2: Three-Minute Video" (Rubric), Worksheet 2, "Biodiversity 2: Three-Minute Video" (Storyboard), Device to Record themselves (cell phone, ipads, flip videos, etc...)
- Extension: Ability to Show Videos in Small Groups or as a Class

Teacher Preparation: 1-2 hours making example three-minute video; 30-60 minutes to review activity, collect materials, and print copies

Student Knowledge: basic knowledge on recording video

Vocabulary: biodiversity, storyboard, organism

Next Generation Science Standards:**• MS-LS2-1.**

Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem

• MS-LS2-4.

Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

Overview:

Students will make a three-minute video showing the surrounding biodiversity. Combining technology with the fun of being in a video makes this activity an engaging assignment to get students involved in the nature around them. Students can focus on their backyards, a park, a forested area, a schoolyard, a natural area, or any other outside area they wish to explore. Before filming, students must complete a storyboard, showing their plan for the video. Making the video will require students to focus on all parts of their filming area and take notice of its unique environmental features. The project's purpose is not to complete a "perfect" video, but to get students outside and having fun sharing information about their chosen environment.

Background Information:

Biodiversity refers to the variety of living things in a given area, including animals, plants, invertebrates, non-vascular plants, fungi, and microorganisms. By producing three-minute videos, students will be given opportunities to explore a chosen area and look closely at all features of an environment. The purpose of the video is to encourage students to look for all living things in their area, including evidence of living things (bird's nest, ant hills, scat, feathers, etc.). Students should be encouraged to look under rocks and logs, look up in trees, and examine ponds or water sources, leaving no area unexplored.

Focus Questions:

Where can I find living things in my environment?

How many different species can I find in a given area?

Are some areas more diverse than other areas?



Learning Target: I can talk about the many different organisms found in my chosen area.

Engagement:

(10-15 minutes)

Instructor will show his/her own three-minute nature video, prepared as an example for students. Students will love seeing this video and it will inspire them to go out and make their own. Also, the instructor's example sets a standard of what should be included in student videos. The instructor should share his/her thought processes in determining how the example video was filmed.

Investigation:

(25-30 minutes over multiple days)

1. Students will work together in assigned teams to produce a three-minute video. The video will focus on biodiversity in a specific area that has been approved by the instructor. Students will be given a rubric that will be used for the grading of their videos, Worksheet 1, "Biodiversity 2: Three-Minute Video". Clear expectations are provided on what to include in the video in order to achieve the highest grade possible.
2. Work time in class will include a chance for all students to discuss and share their ideas as they complete their storyboard for the video. Storyboards serve as an overall guide of the project and are not as specific as a script. It is important that students complete a storyboard because it allows the students to think through what their video will look like and what content will be included in the final project. See further information about the storyboard in the explanation.
3. It is recommended to have a whole class discussion of ideas from each of the different student groups.

Explanation:

(15-20 minutes over multiple days)

1. Instructor will select any video template for students to use in planning their biodiversity video. By researching "template for video storyboard" online, the instructor

will be able to click on images for a wide choice of templates that can be used for this project. (Note: A template is included with this lesson plan, Worksheet 2, "Biodiversity 2: Three-Minute Video," though the instructor may wish to select another.) The purpose of the storyboard is to focus the students' thoughts about where and what they are going to record and what they will say about the biodiversity in their areas.

3. After their storyboard has been approved, students will record their video for submission.

Extension:

(1-2 hours)

Three-minute film festival: The instructor will make arrangements for students to view and discuss each other's three-minute videos. Special awards could be given for "Best Picture," Best Supporting Wildlife," "Best Audio Description," etc.